

WHAT IS CLAIMED IS:

1. An alteration checking apparatus comprising:  
a back-up unit that copies original data from an original data storage unit to a back-up data storage unit as back-up data; and  
5 an alteration deciding unit that, after copying of the original data as the back-up data is over, decides whether the original data has been altered based on a comparison between the original data and the back-up data.
- 10 2. The alteration checking apparatus according to claim 1, further comprising a list storing unit, wherein  
the alteration checking unit writes information in the list storing unit relating to original data that have been copied successfully as the back-up data and relating to original data that are decided to be not  
15 altered.
3. The alteration checking apparatus according to claim 2, further comprising a access deciding unit that checks whether original data relating to an access request has been altered each time there is  
20 access request, wherein  
the alteration checking unit adds information to the information relating to relating to original data, in the list storing unit, that indicates that original data is not altered corresponding to original data that the access deciding unit decides as to be not altered.

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4. The alteration checking apparatus according to claim 1, wherein the back-up data are stored in the back-up storage unit based on time at which the back-up data was stored in the back-up storage unit, the alteration checking apparatus further comprising:
- 5 a restoration unit that restores original data when the alteration deciding unit decides that the original data has been altered, based on latest original data corresponding to the original data to be restored from the back-up storage unit.
- 10 5. The alteration checking apparatus according to claim 1, further comprising a request processing unit that denies access to the original data in the original data storage unit while back-up unit is copying the original data and that allows access to the original data in the original data storage unit while the alteration deciding unit is deciding whether
- 15 the original data has been altered.
6. A method of taking a back-up of original data and deciding whether the original data has been altered, comprising:
- copying the original data as back-up data; and
- 20 deciding, after the copying is over, whether the original data has been altered based on a comparison between the original data and the back-up data.
7. The method according to claim 6, further comprising:
- 25 denying access to the original data in the original data storage

unit during the copying; and

allowing access to the original data in the original data storage unit during the deciding.

- 5     8.     A computer program containing instructions which when executed on a computer causes the computer to execute:

copying the original data as back-up data; and

- deciding, after the copying is over, whether the original data has been altered based on a comparison between the original data and the  
10   back-up data.

9.     The computer program according to claim 8, further comprising:  
denying access to the original data in the original data storage unit during the copying; and

- 15     allowing access to the original data in the original data storage unit during the deciding.